

Natural & Synthetic Gemstone Firing Tests

(Based on the results of Kevin Whitmore)

Butane Torch Tests – These stones were fired with a butane torch in 650/1200 Low Fire Art Clay Silver for three minutes (after reaching the sintering color).

Lab-Grown Gemstone	Stone fired in ACS 650/1200 Low Fire for 3 minutes	Guide
Rhodolite	Survived	Good
Peridot	Survived	Good
Blue Sapphire (A-Grade)	Survived	Good
Blue Sapphire (AAA-Grade)	Survived	Good
White Sapphire	Survived	Good
Ruby (A-Grade)	Survived	Good
Ruby (AAA-Grade)	Survived	Good
Tanzanite	Survived	Good
Peach Moonstone	Damaged	Unsafe
Silver Moonstone	Damaged	Unsafe
Labradorite	Damaged	Unsafe

Natural Gemstone	Stone fired in ACS 650/1200 Low Fire for 3 minutes	Guide
Rhodolite	Survived	Good
Peridot	Survived	Good
Blue Sapphire (A-Grade)	Survived	Good
Blue Sapphire (AAA-Grade)	Survived	Good
White Sapphire	Survived	Good
Ruby (A-Grade)	Survived	Good
Ruby (AAA-Grade)	Survived	Good
Tanzanite	Survived	Good
Peach Moonstone	Damaged	Unsafe
Silver Moonstone	Damaged	Unsafe
Labradorite	Damaged	Unsafe

Slow Ramp Kiln Tests – In these tests, the kiln ramp rate was 500°F per hour. The kiln was set to hold for 30 minutes when it reached 1200°F.

Natural Gemstone	Stone Only (1200°F for 30 min.)	Stone fired in ACS 650/1200 Low Fire	Guide
Tanzanite	Survived	Survived	Good
Green Topaz	Survived	Survived	Good
White Topaz	Survived	Survived	Good
Green Tourmaline	Survived	Survived	Good
Labradorite	Survived	Survived	Questionable
Rainbow Moonstone	Damaged	Damaged	Questionable
Aquamarine	Survived	Damaged	Questionable
Silver Moonstone	Some Damage	Some Damage	Questionable
Peach Moonstone	Some Damage	Some Damage	Questionable
Blue Goldstone	Damaged	N/A	Unsafe
Smoky Quartz	Damaged	N/A	Unsafe
Amethyst	Damaged	N/A	Unsafe
Citrine	Damaged	N/A	Unsafe
Rainbow Topaz	Damaged	N/A	Unsafe
Pink Tourmaline	Damaged	N/A	Unsafe

Natural & Synthetic Gemstone Firing Tests

(Based on the results of Kevin Whitmore)

Fast Ramp Kiln Tests – In these tests, the kiln was ramp rate was set to full. The kiln was set to hold for 30 minutes when it reached 1200°F.

Natural Gemstone	Stone Only (1200°F for 30 min.)	Stone fired in ACS 650/1200 Low Fire	Guide
Chrome Diopside	N/A	Survived	Good
Almandine Garnet	Survived	Survived	Good
Pyrope Garnet	Survived	Survived	Good
Rhodolite Garnet	Survived	Survived	Good
Tsavorite Garnet	N/A	Survived	Good
Hematite	N/A	Survived	Good
Moonstone	Survived	Survived	Good
Peridot	Survived	Survived	Good
Black Star Sapphire	Survived	Survived	Good
Tourmaline	Survived	Damaged	Questionable
Denim Lapis	Survived	Survived	Questionable
Lapis Lazuli – Dark	Damaged	N/A	Questionable
Agate (Cameo)	Damaged	N/A	Unsafe
Amethyst	Damaged	N/A	Unsafe
Aquamarine	N/A	Damaged	Unsafe
Aventurine	Damaged	N/A	Unsafe
Carnelian	Damaged	N/A	Unsafe
Blue Mist Chalcedony	Damaged	N/A	Unsafe
Citrine	Damaged	N/A	Unsafe
Iolite	Destroyed	N/A	Unsafe
Jadeite	Damaged	N/A	Unsafe
Malachite	Destroyed	N/A	Unsafe
Mexican Fire Opal	N/A	Damaged	Unsafe
Black Onyx	Damaged	Damaged	Unsafe
Rhodochrosite	Damaged	N/A	Unsafe
Rose Quartz	Destroyed	N/A	Unsafe
Tiger's Eye	Darkened	N/A	Unsafe
Blue Topaz	Destroyed	N/A	Unsafe
Turquoise	Destroyed	N/A	Unsafe

Synthetic Gemstone	Stone fired in ACS 650/1200 Low Fire for 30 minutes	Guide
Alexandrite	Survived	Good
CZ	Survived	Good
Emerald	Survived	Good
Ruby	Survived	Good
Sapphire	Survived	Good
Spinel	Survived	Good
Tavalite CZ	Survived	Questionable
Star Corundum	Survived	Questionable